Remarks

Reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 1-22 remain pending. Claim 23 has been added to secure the appropriate scope of protection to which applicants are believed entitled. Claim 23 specifically recites extracting consecutive video frames, aligning interpolated video frames using regions of interest, and creating a single image using pixel averaging, none of these features being found in the applied reference.

The rejection of claims 1, 2, 4, 5, 7, 11, 12, and 20-22 under 35 USC 102 (e) as being anticipated by De Bonet et al. (U.S. Patent No. 6,510,177) is hereby traversed. A rejection based on 35 U.S.C. §102 requires every element of the claim to be included in the reference, either directly or inherently. The Examiner has failed to identify all elements of claim 1 as anticipated by the De Bonet reference.

The Examiner asserts that the De Bonet reference describes interpolating the up sampled video frames; however, there is no description of interpolation of up sampled video frames to be found in the reference. Specifically, the De Bonet reference solely describes step 920 in terms of the result of step 915, the up sampling of the video frames. The interpolating step of claim 1 is not to be found in the De Bonet reference. For at least this reason, the rejection of claim 1 should be withdrawn.

Further still, the Examiner asserts that the step of aligning the interpolated video frames is inherent because the alignment is a necessary step or process without which the image wouldn't be displayed properly. The Examiner is incorrect even with respect to the De Bonet reference. That is, because the De Bonet reference does not create a single image, rather multiple video frames are produced, there is no need for aligning the video frames. The present invention requires alignment of the interpolated video frames because a single image is to be created based on the video frames. For least this reason, the rejection of claim 1 should be withdrawn.

Finally, the Examiner asserts that the De Bonet reference creates a single image from the aligned video frames; however, as described above in connection with the aligning step, the De Bonet reference fails to create a single image from multiple video frames. "The enhancement layer includes a high resolution video stream." De Bonet at column 7, lines 32-33. The enhancement layer output by step 960 is a high resolution video stream and not a single image as claimed in claim 1. For at least this reason, the rejection of claim 1 should be

withdrawn.

Claims 2, 4, 5, 7, 11, and 12 depend, either directly or indirectly, from claim 1, incorporate further important limitations, and are patentably distinguishable from the applied reference for at least the reasons presented for claim 1 above, and the rejection of claims 2, 4, 5, 7, 11, and 12 should be withdrawn.

With specific reference to claim 11, the Examiner asserts that the claim limitations are inherent because individual frames must be overlapped to be displayed as a continuous image; however, the Examiner has failed to identify where in the reference identifying commonality from one individual frame to the next is performed in the reference. The De Bonet reference does not identify commonality from one individual frame to the next. For at least this reason, the rejection of claim 11 should be withdrawn.

Claims 20-22 are patentably distinguishable from the applied reference for reasons similar to those presented with respect to claim 1 above, and the rejection of claims 20-22 should be withdrawn.

The rejection of claims 3, 6, 10, 13, and 14 under 35 USC 103 (a) as being unpatentable over the De Bonet reference is hereby traversed.

The Examiner asserts that the up sample step of a factor of four claimed in claim 3 is an obvious matter of design choice and that any factor would perform equally well with the disclosed sampling method. The Examiner's attention is directed to the present specification, specifically to page 11, lines 1-5, wherein the specification describes the factor of 4 as found by the inventor to be optimal and yielding the most consistent results. Further, specific benefits of using a factor of four are described, as well as reasons for not using a higher factor. For at least this reason, it would not have been an obvious matter of design choice to modify the De Bonet reference to use an up sampling factor of four as asserted by the Examiner. Because the De Bonet reference fails to include the specific limitation and does not render the limitation obvious, the rejection of claim 3 should be withdrawn.

Claims 6 and 13 depend from claim 1, incorporate further important limitations, and are patentable over the De Bonet reference for at least the reasons presented with respect to claim 1 above, and the rejection of claims 6 and 13 should be withdrawn.

Claim 10 depends from claim 1, incorporates further important limitations, and is patentable over the De Bonet reference for at least the reasons presented with respect to claim 1 above, and the rejection of claim 10 should be withdrawn. Further, as described above with respect to claim 1, the Examiner has not identified where in the De Bonet reference the

asserted interpolation is performed. For at least this reason, the rejection of claim 10 should be withdrawn.

Claim 14 depends from claim 1, incorporates further important limitations, and is patentable over the De Bonet reference for at least the reasons presented with respect to claim 1 above, and the rejection of claim 14 should be withdrawn. Further, as described above with respect to claim 1, the Examiner is incorrect with respect to the De Bonet reference inherently correlating the video images because the De Bonet reference does not align the video frames and create a single image from the aligned video frames. No alignment of video frames is required by the De Bonet reference. For at least this reason, the rejection of claim 14 should be withdrawn.

The rejection of claims 8, 9, and 15-19 under 35 USC 103 (a) as being unpatentable over the De Bonet reference in view of Szeliski et al. (U.S. Patent No. 6,018,349) is hereby traversed. The Examiner has failed to identify any motivation or suggestion in either reference teaching, suggesting, or describing the asserted combination. The Examiner appears to have improperly applied hindsight reasoning based on the present invention to make the asserted combination.

Further, the references operate in a different manner and produce a different output. That is, the De Bonet reference is directed to video frames of a video stream, while the Szeliski reference is directed to a combination of still images to construct a mosaic.

The fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish prima facie obviousness. A statement that combinations of the prior art to meet the claimed invention would have been well within the ordinary skill of the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. See MPEP 2143.01 quoting Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). The Office Action merely stated that the references can be combined, which Appellants contend to the contrary, and does not state any desirability for making the combination. In other words, the Office Action failed to supply any objective reasons to combine the applied references.

In accordance with MPEP §2143.01 and Al-Site Corp. v. VSI Int'l Inc., 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999), the Examiner is requested to identify a teaching, suggestion, or motivation in either reference providing a motivation or suggestion to one of ordinary skill in the art to make the argued combination. The Examiner has not identified any teaching in De Bonet or Szeliski motivating or suggesting the asserted combination to a

person of ordinary skill in the art because there is no teaching to be found. For at least this reason, the rejection should be reversed.

"When an obviousness determination is based on multiple prior art references, there must be a showing of some 'teaching, suggestion, or reason' to combine the references." Winner International Royalty Corp. v. Wang, 53 USPQ2d 1580, 1586 (Fed. Cir. 2000). The Examiner has failed to make such a showing supporting the applied combination of references and therefore the applied combination of references is improper. The Examiner is in error for any of the above reasons and has not made out a prima facie case of obviousness, and the rejection of claim 8 should be withdrawn.

Claim 15 is patentable over the applied combination of references for reasons similar to those advanced above with respect to claim 8 and the rejection of claim 15 should be withdrawn.

With respect to claim 9, the Examiner asserts that compensation for platform movement and rotation zoom would have to be made to prevent images from being distorted and artifacts introduced in the composite image; however as described above, there is no composite image created in the De Bonet reference. Further, as described above with respect claim 8, the Examiner has failed identify any motivation or suggestion in either reference teaching, suggesting, or describing the asserted combination. For either of these reasons, the rejection of claim 9 should be withdrawn.

Claim 16 is patentable over the applied combination of references for reasons similar to those advanced above with respect to claim 9 and the rejection of claim 16 should be withdrawn.

Claim 17 depends indirectly from claim 1 and is patentable over the applied combination of references for at least the reasons advanced above with respect to claims 1 and 8, and the rejection of claim 17 should be withdrawn.

Claim 18 depends from claim 17, includes further important limitations neither anticipated nor rendered obvious by the applied references, and is patentable over the applied combination of references for at least the reasons advanced above with respect to claims 11 and 17, and the rejection of claim 18 should be withdrawn.

Claim 19 depends from claim 18, includes further important limitations neither anticipated nor rendered obvious by the applied references, and is patentable over the applied combination of references for at least the reasons advanced above with respect to claims 12 and 18, and the rejection of claim 19 should be withdrawn.

To the extent necessary, please charge any shortage in fee due in connection with this filing to Deposit Account No. 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

LOWE HAUPTMAN GILMAN & BERNER, LLP

Randy A. Noranbrock
Registration No. 42,940

USPTO Customer No. 22429
1700 Diagonal Road, Suite 310
Alexandria, VA 22314
(703) 684-1111
(703) 518-5499 Facsimile
Date: May 22, 2003
KMB/RAN/sbs